

Amendment

The following provides a list of currently-pending claims:

1.-15. cancelled

16. (new) An intra-buccal sensor sensitive to x-rays of a first wavelength emerging from an irradiated tooth and comprising:

a. means, comprising a plurality of cylindrical rods positioned side-by-side with each rod having a longitudinal axis, for both (i) guiding the x-rays emerging from the tooth substantially along the longitudinal axes of the cylindrical rods and (ii) transforming the guided x-rays into light rays of wavelength greater than the first wavelength, the cylindrical rods being produced from a material enabling both the guiding and the transformation of the x-rays; and

b. a plurality of optical fibers connected to the cylindrical rods.

17. (new) An intra-buccal sensor according to claim 16 further comprising means, connected to the plurality of optical fibers, for converting light rays to electrical signals.

18. (new) An intra-buccal sensor according to claim 17 in which the converting means comprises a CCD.

19. (new) An intra-buccal sensor according to claim 17 in which each of the cylindrical rods has an outlet face to which an optical fiber is connected.

20. (new) An intra-buccal sensor according to claim 19 in which (i) each of the cylindrical rods further has an inlet face capable of receiving the x-rays and (ii) the outlet faces are capable of emitting the light rays.

21. (new) An intra-buccal sensor according to claim 16 in which the cylindrical rods are produced from caesium iodide crystal.

22. (new) An intra-buccal sensor according to claim 16 in which the cylindrical rods have substantially cylindrical revolving configuration, length between 80 to 200 μm , and diameter between 3 to 7 μm .

23. (new) An intra-buccal sensor according to claim 16 in which the cylindrical rods form a mosaic.